

REMARKS

Claims 29 and 38 are pending in the application. Claims 37 and 39 have been canceled without prejudice. Claims 29 and 38 have been amended to further clarify the presently-claimed invention. Support for the amendments to claims 29 and 38 can be found at *inter alia*, the Examples section [0067] – [0103] in the US Patent Application Publication No. 2007/0042344. Example 7 discloses that NK cell percentage was increased when HSC was treated with IL-15 and LPL together compared with IL-15 alone. LPL and ferritin H have both been identified in Example 4 as belonging to the group of proteins that are expressed in pNK cells. Therefore, the present application provides support for the advantageous effects of combining IL-15 with the proteins that are expressed in pNK cells, including LPL and ferritin H.

No new matter has been introduced, and entry of the above revised claims is respectfully requested.

Priority Document

A certified copy of the Korean priority document will be submitted in due course under separate cover.

Drawing

The Office indicated that color drawings are required for Figs. 3A-3F. Replacement color photomicrographs will be re-submitted in due course under separate cover.

Double Patenting and Claim Objections

Claims 37 and 39 have been objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicants traverse this rejection. Reconsideration and withdrawal thereof are respectfully requested. However, claims 37 and 39 have been cancelled. Accordingly, this objection has been overcome.

Rejection Under 35 U.S.C. §112, second paragraph

Claims 37 and 39 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants traverse this rejection. Reconsideration and withdrawal thereof are

respectfully requested. However, claims 37 and 39 have been cancelled. Accordingly, this rejection has been overcome.

Rejection Under 35 U.S.C. §112, first paragraph – new matter

Claims 29 and 37-39 have been rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. The Examiner objects to the addition of SEQ ID NO:49 in the application. Applicants traverse this rejection. Reconsideration and withdrawal thereof are respectfully requested. However, claims 37 and 39 have been cancelled. And Claim 29 does not recite “SEQ ID NO:49”. Accordingly, removal of this rejection is respectfully requested.

Rejection Under 35 U.S.C. §112, first paragraph

Claims 29 and 37-39 have been rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. Applicants traverse this rejection. Reconsideration and withdrawal thereof are respectfully requested.

The Examiner refers to a discontinuity of claim language, in which the preamble states differentiation of “a stem cell to a natural killer cell” but the method steps begin with “a premature natural killer cell” which is treated with a ferritin H chain protein. It is believed that the amended claims 29 and 38 provide consistent language throughout these claims.

The Examiner also states that Dr. Choi’s Declaration submitted with the Amendment of July 28, 2009 shows that the combination of IL-15 and ferritin H chain together works better than IL-15 alone to induce differentiation of MK cells from HSCs. The presently claimed invention recites this feature. Therefore, it is believed that this rejection has been overcome.

Conclusion

It is believed that the application is now in condition for allowance. Applicants request the Examiner to issue a notice of Allowance in due course. The Examiner is encouraged to contact the undersigned to further the prosecution of the present invention.

The Commissioner is hereby authorized to charge JHK Law's Deposit Account No. **502486** for such fees required under 37 CFR §§ 1.16 and 1.17 and to credit any overpayment to said Deposit Account No. **502486**.

Respectfully submitted,

JHK Law

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